11. (NEW) The method of claim 10, wherein the physical etching comprises sputter etching with particles bombarding the remaining second portion of the second electrode layer, and wherein the bombarding particles each have a kinetic energy that is between the sputtering threshold energy of the second electrode layer and the sputtering threshold energy of the insulating layer.

12. (NEW) The method of claim 11, wherein the kinetic energy is between 20eV and 40 eV.

13. (NEW) The method of claim 11, wherein the bombarding particles have a mass which is heavier than the mass of a metallic element of the second magnetic material of the second electrode layer.

14. (NEW) The method of claim 11, wherein the bombarding particles are selected from the group consisting of Kr ions and XE ions.

15. (NEW) The method of claim 10, wherein the insulating layer comprises a non-magnetic material element, and wherein the mass of the non-magnetic element is lighter than the mass of a metallic element of the second magnetic material of the second electrode layer.

16. (NEW) The method of claim 10, wherein etching away the portion of the second electrode layer comprises chemically etching away the portion of the second electrode layer.

17. (NEW) The method of claim 10, wherein etching away the portion of the second electrode layer comprises physically etching away the portion of the second electrode layer.

18. (NEW) The method of claim 10, wherein the second thickness does not exceed 5 nm.

19. (NEW) The method of claim 10, wherein the first magnetic material comprises a soft-magnetic material.

20. (NEW) The method of claim 10, wherein the second magnetic material comprises a hard-magnetic material.

21. (NEW) The method of claim 10, wherein the second electrode layer in the providing step comprises a basic layer on the insulating layer and a layer structure on the basic layer, wherein the layer structure comprises at least one layer, wherein the layer structure effectuates a magnetic pinning of the basic layer, wherein etching away a portion of the second electrode layer comprises:

etching away a portion of the layer structure selectively with respect to the basic layer; and

etching away a portion of the basic layer such that a remaining portion of the basic layer is comprised by the second portion of the second electrode layer.

22. (NEW) The method of claim 21, wherein the basic layer comprises a ferromagnetic layer.

23. (NEW) The method of claim 21, wherein the layer structure comprises an anti-ferromagnetic layer.

24. (NEW) The method of claim 21, wherein the layer structure comprises a hard-magnetic

ferromagnetic layer.

25. (NEW) The method of claim 21, wherein the layer structure comprises an artificial anti-ferromagnetic structure comprising two anti-parallel magnetic layers separated by a metallic intermediate layer.

26. (NEW) The method of claim 10, further comprising after removing the remaining second portion of the second electrode layer: forming a protective layer on the insulating layer.

27. (NEW) The method of claim 26, wherein the protective layer includes an insulating material.

28. (NEW) The method of claim 10,

wherein prior to etching away the portion of the second electrode layer, forming a shielding layer on the first portion of the second electrode layer to protect the first portion of the second electrode layer from being etched away during said etching away; and

wherein after removing the remaining second portion of the second electrode layer, removing the shielding layer.

29. (NEW) The method of claim 28, wherein the shielding layer comprises photoresist.

30. (NEW) The method of claim 10, further comprising providing a magnetic yoke in magnetic contact with the first electrode layer.

31. (NEW) The method of claim 30, wherein the magnetic yoke comprises an interruption that

includes an insulating material.

32. (NEW) The method of claim 30, wherein the magnetic yoke comprises a non-magnetic transducing gap that includes an insulating material.

33. (NEW) A magnetic device, comprising:

an first electrode layer including a first magnetic material;

an insulating layer on the first electrode layer; and

a second electrode layer including a second magnetic material, wherein the second electrode layer is on a first portion of the insulating layer and is not on a second portion of the insulating layer.

34. (NEW) The magnetic device of claim 33, wherein the insulating layer comprises a non-magnetic material element, and wherein the mass of the non-magnetic element is lighter than the mass of a metallic element of the second magnetic material.

35. (NEW) The magnetic device of claim 33, wherein the first magnetic material comprises a soft-magnetic material.

36. (NEW) The magnetic device of claim 33, wherein the second magnetic material comprises a soft-magnetic material.

37. (NEW) The magnetic device of claim 33, wherein the second magnetic material comprises a hard-magnetic material.

38. (NEW) The magnetic device of claim 33, wherein the second electrode layer comprises a basic layer on the insulating layer and a layer structure on the basic layer, wherein the layer structure comprises at least one layer, and wherein the layer structure effectuates a magnetic pinning of the basic layer.

39. (NEW) The magnetic device of claim 38, wherein the basic layer comprises a ferromagnetic layer.

40. (NEW) The magnetic device of claim 38, wherein the layer structure comprises an anti-ferromagnetic layer.

41. (NEW) The magnetic device of claim 38, wherein the layer structure comprises a hard-magnetic ferromagnetic layer.

42. (NEW) The magnetic device of claim 38, wherein the layer structure comprises an artificial anti-ferromagnetic structure comprising two anti-parallel magnetic layers separated by a metallic intermediate layer.

43. (NEW) The magnetic device of claim 33, further comprising a protective layer on the insulating layer.

44. (NEW) The magnetic device of claim 43, wherein the protective layer includes an insulating material.